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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,381	07/09/2003	Takeshi Nishiuchi	000593B	1378

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EXAMINER

BUEKER, RICHARD R

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615.381

Applicant(s)

NISHIUCHI ET AL.

Examiner

Richard Bueker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 15 and 21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 15 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Steube I (4,233,937) (see Figs. 1 and 7, for example), who discloses a surface treating apparatus that is a vacuum evaporation coating apparatus comprising a vacuum chamber that contains a heater for melting and evaporating a wire-shaped vapor-depositing material. The wire-shaped vapor-depositing material can be aluminum (col. 6, lines 15-16). A work support for retaining the work-piece to be coated is provided in the vacuum chamber. The apparatus of Steube I includes a supply means for supplying said wire-shaped vapor-depositing material. The supply means of Steube I includes a reel (see element 134 of Fig. 7 and col. 6, line 8 to col. 7, line 8) as recited in claim 21. The supply means of Steube I is inherently capable of supplying a wire-shaped vapor-depositing material that contains a "vapor deposition controlling gas". Claims 14, 15 and 21 do not positively recite a wire-shaped vapor-depositing material as a part of the claimed apparatus. Therefore, the recited "wire-shaped vapor-depositing material containing the vapor

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deposition controlling gas" is included in the claims only as a recitation of an intended use of the claimed apparatus. Therefore, claims 14, 15 and 21 are not limited to only an apparatus using "a wire-shaped vapor-depositing material containing a vapor deposition controlling gas", and claims 14, 15 and 21 also include an apparatus such as the Steube I apparatus, which is inherently capable of using "a wire-shaped vapor-depositing material containing a vapor deposition controlling gas" as a wire-shaped vapor-depositing material source. The Steube I apparatus also includes wheels 30 (see Fig. 3 and col. 3, lines 4-51, for example), each of which is "a rotatable member, disposed in the treating chamber, and spaced above the melting/evaporating source, for retaining a work on which the vapor depositing material is deposited" as recited in amended claim 21. Regarding the newly added claim 21 limitation of "a horizontally disposed feed reel", it is noted that the dictionary definition (copy attached to this office action) of "horizontal" is "operating in a plane parallel to the horizon or to a base line". The feed reel 134 of Steube I operates in a plane parallel to the horizon and therefore it can properly be described as "a horizontally disposed feed reel".

Claims 14, 15 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Steube II (3,926,147) (see Fig. 4 and col. 5, lines 16-59, for example), who discloses a surface treating apparatus that is a vacuum evaporation coating apparatus comprising a vacuum chamber that contains a heater for melting and evaporating a wire-shaped vapor-depositing material. The wire-shaped vapor-depositing material can be aluminum (col. 4, lines 61-65). A rotatable member for retaining the work-piece to be coated is provided in the vacuum

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chamber as recited in newly added claim 21. The apparatus of Steube II includes a supply means for supplying said wire-shaped vapor-depositing material. The supply means of Steube II includes a horizontally disposed reel (see element 120 of Fig. 4) as recited in newly added claim 21. The supply means of Steube II is inherently capable of supplying a wire-shaped vapor-depositing material that contains a "vapor deposition controlling gas". Claims 14, 15 and 21 do not positively recite a wire-shaped vapor-depositing material as a part of the claimed apparatus. Therefore, the recited "wire-shaped vapor-depositing material containing the vapor deposition controlling gas" is included in the claims only as a recitation of an intended use of the claimed apparatus. Therefore, claims 14, 15 and 21 are not limited to only an apparatus using "a wire-shaped vapor-depositing material containing a vapor deposition controlling gas", and claims 14, 15 and 21 also include an apparatus such as the Steube II apparatus, which is inherently capable of using "a wire-shaped vapor-depositing material containing a vapor deposition controlling gas" as a wire-shaped vapor-depositing material source.

Even if, for the sake of argument, Steube's (I or II) description of his apparatus alone were not considered to inherently anticipate the apparatus of applicants' claims 14, 15 and 21, these claims would still be considered unpatentable for the further reasons stated in the rejection below.

Claims 14, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steube I (4,233,937) or Steube II (3,926,147) taken in view of Satoh (JP 60-92466). As noted above, Steube I and Steube II both teach the use of an aluminum wire as the wire-shaped vapor-depositing material source. Satoh (see the

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attached English translation) teaches that an aluminum wire that is conventionally used as a source material for vacuum evaporation coating typically or inherently contains hydrogen. Satoh teaches that it is desirable to reduce the amount of hydrogen in the aluminum wire prior to the vapor deposition process, because this will improve the quality of the deposited aluminum coating. It is noted also, however, that Satoh also makes clear that an aluminum coating can successfully be deposited by using an aluminum wire of unreduced hydrogen content, although the resultant coating is of lesser quality. It would have been obvious to use the type of hydrogen containing aluminum wire vapor source material described by Satoh as the aluminum vapor source material in Steube's (I or II) apparatus, with either a reduced hydrogen content as preferred by Satoh, or with an unreduced hydrogen content as not preferred by Satoh, because Satoh makes clear that it was known in the prior art that an aluminum coating could successfully be deposited on a work-piece by using an aluminum wire vapor source material that contains hydrogen. Regarding the use of an aluminum wire with an unreduced hydrogen content, which is not preferred by Satoh, see *In re Boe*, 148 USPQ 507.

Applicants' arguments have been considered but are not persuasive. As noted in the rejections stated above, The apparatus of Steube I and Steube II include a rotatable member and also a horizontally disposed feed reel as recited in newly added claim 21.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carpenter (3,750,623) is cited and discussed by Steube II (3,926,147) at col. 5, lines 16-59, for example. It is noted also that both Steube II

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(3,926,147) and Carpenter (3,750,623) are cited and discussed by Steube I (4,233,937) at col. col. 1, lines 35-39.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parvis Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Richard Bueker
Primary Examiner
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